

Abstract of the Disclosure

Tubular-shaped flexible members for air springs are made of rubber or rubber-like elastomers and are reinforced by reinforcement layers. In order that the air spring flexible member can roll telescopically off a roll-off piston, the tubular-shaped flexible member sections must be brought into a slightly conical or bottle-like configuration and then vulcanized in this form. A method forms and vulcanizes an air spring flexible member blank and utilizes an apparatus which includes a mold defining a bellied inner wall defining a common hollow space for receiving the air spring flexible member blank therein. A pressure bellows unit includes a pressure bellows extending axially in the common hollow space as well as first and second end pieces joined to the pressure bellows at corresponding longitudinal ends thereof. In the method, the blank is placed over the pressure bellows and pressurized air is introduced into the interior of the pressure bellows to expand the pressure bellows thereby pressing the blank against the bellied inner wall and causing the pressure bellows to shorten. The end pieces are moved along the longitudinal axis to follow the shortening of the pressure bellows as the pressure bellows expands thereby holding a mechanical loading on the pressure bellows to a low value.